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COLMAN'S RURAL WORLD

NORMAN J. COLMAN, EDITOR.
LEVI CHUBBUCK, ASSISTANT EDITOR.

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The Alton, Ill., Horticultural Society will hold its January meeting on Saturday of this week, Jan. 19, at Hotel Madison, in Alton.

Philip D. Armour died at his home in Chicago, January 6. He had been in delicate health for two years. Mr. Armour began life on a small farm in New York, and from this humble lot became the largest packer of meats in the world, can trolling millions of money.

It is not too much to say that he revolutionized the meat business of the world—from the methods in vogue on the farms where the stock was raised to those by which the products were put into the hands of the consumer. Yet as a boy, in 1849, in making his way to California, he walked a good part of the distance between his humble farm home in New York and the Golden Gate. His contributions to philanthropy have been many and generous.

ADVANCED FARMING.

Governor John F. Hill of Maine, in his inaugural message to the Maine Legislature, said:

Agriculture will always be our most important industry. It gives employment and support to more than half our population, and whatever serves to advance its interests and bring greater prosperity to our farming communities is a benefit to the whole state. The growth of our cities and manufacturing centers, and the increased volume of summer travel coming into Maine every year have created better home markets for our farm products; but the great resources of the state are not yet fully appreciated. The constant development of our magnificent water power, much of which has never been utilized, and the more general adoption of improved methods of agriculture, must result in still greater prosperity in the years to come.

The influence of the Grange has been a potent factor in the advancement of our agricultural interests, and has added greatly to the pleasure and profit of farm life.

The Board of Agriculture is doing work of inestimable value and importance. The large number of farmers' institutes, which have been held during the past year, have everywhere been well attended, and great interest has been manifested in this work by the farmers of the State, who have given it their cordial support. I am persuaded that these meetings and the general work of the board, have done much to stimulate and encourage the ambitious and progressive farmer by bringing to every community a knowledge of the best and most productive methods of modern agriculture.

Maine is just beginning to make a reputation for her dairy products. There are 40 creameries and 14 cheese factories in the state, utilizing the product of 30,000 cows, and this represents only a small part of the whole dairy interest.

It is felt by many of our most successful and progressive dairymen, who appreciate the great importance of this industry and the benefits which would accrue to the state by its development, that the work of the Board of Agriculture should be still further broadened and extended by having an executive officer whose duty it shall be to attend closely to educational dairy work, and to the enforcement of the law against the sale of imitation dairy products.

You will be asked for an appropriation for this purpose, and I am confident that a request made in the behalf of so important an interest will receive your generous consideration.

WHAT PARIS ATE.—Figures are published showing what Paris ate daily during September, when there were large numbers of visitors at the exhibition at any time. A slaughter house at Villejuif which supplies Paris dispatched daily an average of 5,044 oxen, 1,041 cows, 23,384 sheep, 3,725 pigs and 2,699 calves. This compares as follows with the average daily requirements: In ordinary times this same slaughter house furnishes 1,210 oxen, 450 cows, 13,329 sheep, 4,388 pigs and 1,425 calves.

ST. LOUIS, MO., WEDNESDAY, JANUARY 16, 1901.

Volume LIV., No. 3.

BLUE GRASS AND TIMOTHY

For Permanent Pasture.

A Lincoln Co., Mo., reader of the RURAL WORLD writes: I have about 75 acres of corn ground and oat stubble that I want to put in pasture and think of sowing timothy and blue grass in equal parts. What is the best way to get the blue grass started? I understand there is some difficulty in getting a start. Both grasses named do well here when once set.

LOUIS WEHRMAN.

We question the policy of sowing timothy and blue grass seed in equal parts for permanent pasture. Timothy is not suitable for a pasture grass. It can not endure trampling and close grazing. If a mixture of half dozen or more grasses is to be sown, which is the proper method of making a permanent pasture, a few pounds of timothy seed—three to five to the acre—might be added to the mixture, but even this would be of doubtful value.

Blue grass may be sown by itself for permanent pasture in early spring or in October.

Not less than 20 pounds of seed should be sown per acre. Sown on a light snow or while the frost is coming out of the ground the seed will get covered sufficiently, and if good, will germinate readily.

My own private opinion is that government should have retained this privilege. It seems to me that the good Lord gives the rain and springs of water and running streams for all men who need water. In my view governments are God's representatives among men and should see to it that the intent of their Author should be carried out.

FORESTRY is also attracting the attention of our secretary. Years ago the river and creek bottoms were adorned by lofty forests of oak, walnut and other woods. It has been a long while since I saw an oak which I thought would make an easy splitting rail ten feet long.

Secretary Wilson is also trying to forward irrigation. I think that it was not wise to give corporations the privilege of using all the water of a river for their own profit regardless of the rights of others.

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POLE FORESTRY is also attracting the attention of our secretary. Years ago the river and creek bottoms were adorned by lofty forests of oak, walnut and other woods.

It has been a long while since I saw an oak which I thought would make an easy splitting rail ten feet long.

When I first settled on these prairies I bought ten acres of lofty and shapely bur oak. It was before wire fencing or a stock lawn. I cut every tree, many of which made four ten-foot rail cuts. The fact is I cleaned the ground completely. Singular as it may seem, there is all over that ten acres a lusty growth of young walnut, among which but a few bur oaks can be found. Some of these young walnuts are 20 feet high and 10 inches in diameter.

On another 40 acres of mine when I settled, there were a few very scattering trees with here and there a patch of hazel and young hickories and other infant saplings.

So naked was it that I made hay on it, cutting it with a mowing machine.

To day it is covered with young trees which have grown in an incredibly few years,

some of the butt cuts would make four rails. Hence I am somewhat hesitating as to whether to agree to the statement that there is a positive diminution of timber lands. I do not suffer any tree to be touched there. It is the farthest away from the house, of the farm land.

In that dense young timber the woodcock nests and hatches her young. There, and there only, have I heard the shy, melodious woodthrush, most musical of the thrushes. The crows nest there also. It corners with the far away corners of three other farms.

Once there was a nest of the large striped skunks there. But they are no more. A man whose winter calling was hunting skunks for their fur, found it, and dug out and killed every skunk.

I was warm under the collar when I found it out, for I was learning a great deal about their habits, their food, their sports, their marital relations, so to speak, and other things. They were my staples much as the grove which they inhabited. I have not seen a striped skunk for several years.

Tennyson, in his "Morte d'Arthur," says of prayer that it is a golden chain binding men to the throne of God. To follow out a hint from this, I do more devoutly believe that the conscientious husbandman is the Divine instrument in ministering to the physical world. If any man in all the world should be devout certainly that man is the farmer. Let the farm fail and the world shudders.

I feel considerably lost nowadays for want of my woods. Here on the outer edge of a little city, although I have several acres, yet I feel wonderfully cramped.

Think of over 100 acres of pasture and then of an acre. Goodness, I feel smothered. I went out into the woods some five miles away for two days, and shook hands with Nature. I was in the woods and therefore patted the trees, and hailed the woodpeckers and bluejays, the crows and the chick-a-dees. I shall go down to the farm soon, I know.

Winter was of late years my leisure time on the farm. I had things arranged handy so as to feed in good shape and quickly, and I hired the wood cut and hauled to the house. Here we chiefly burn coal, and I help in Latin and Greek and French until I almost imagine myself to times to be a walking declension or conjugation.

The fact is, as I frequently remark to the matron, there is no knowing what a fellow will come down to. Prometheus, Alcestis, Caesar and Ovid, Atala and Madam Therese, drive everything else out of my mind. So if there shouldn't be much agriculture in this Week by Week you will now know the reason.

The celery is blanching finely down cellar. It is delightfully crisp and sweet. I don't see why every farmer should not have this delightful vegetable.

It will give a cheap plan with which to save clover hay. Take a 2x10-inch plank 12 feet long. Cut good saplings for teeth and bolt them on the plank not over two feet apart. Let the center teeth be seven feet long and graduate them until the outside ones are not over four feet long.

Eitch a horse to each end with a boy driver and you need not rake after the mower. With this contrivance I stacked 24 tons in a day and a half.

H. A. H.

SAVING CLOVER HAY.

Editor RURAL WORLD: I would like some one to report, who has had experience, on what success has been had with baling clover hay before stacking. As when stacked in the open without sheds, more or less of the hay will spoil.

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The Dairy.

WHAT GOV. TANNER RECOMMENDS With Reference to Tuberculous Cattle.

Gov. Tanner, in his message to the Legislature, devoted much space to a discussion of tuberculosis in cattle. He said:

"I desire to call your special attention to what I consider an injustice, visited upon the Illinois owners of dairy and breeding cattle, through the operation of the law in relation to diseases among domestic animals. During the period between July 1, 1899, and November 1, 1900, 523 dairy animals, property of individuals, have been slaughtered, by order of the Board of Live Stock Commissioners. The animals were adjudged diseased, with tuberculosis or consumption, and their destruction was a vital necessity for human life. In accordance with law, the value of the animals so destroyed was appraised at \$21,362.50, or an average of \$40.73 per head, but under the rules for compensation adopted by the live stock board, the owners of the animals were paid \$9,180.15, or an average of \$17.60 per head. I consider the state indebted to the owners of this property practically the difference between its appraised value, and what was received for it, and I recommend an appropriation by the General Assembly for the purpose of paying this indebtedness."

After an exhaustive recital of the history of the disease and former legislation on the subject, the Governor concluded as follows:

"I believe that the owners of the animals killed by the state under the operation of the tuberculosis law should be paid the full cash value of their property. I recommend that a sum sufficient for that purpose be appropriated by this Assembly. I regard the righting of this wrong, and the principle to be thereby upheld, one of the most important questions to come before this body. I recommend that the live stock board be given the fullest possible powers necessary to stamp out tuberculosis from the dairy cattle of the state, and let the cost be what it will."

SCRUB COWS AND SCRUB DAIRY-MEN.

(An address by Prof. D. H. Otis of the Kansas Agricultural College, before the Missouri Dairy Convention at Kansas City, Mo.)

A SCRUB COW DEFINED.—Considerable difference of opinion exists as to what constitutes a scrub cow. In the following discussion she will be considered as an animal of no particular breeding representing a common average cow found upon an average Missouri or Kansas farm. She may have a little Shorthorn, possibly a little Holstein, or even a little Hereford or Angus blood in her veins, but this little infusion of improved blood is scarcely noticeable in performance, although it may at times be seen in the color of the animal.

RESULTS AT KANSAS EXPERIMENT STATION.—At the last year's meeting of this association I presented some results obtained at the Kansas Experiment Station with a herd of 28 common or scrub cows. While the average Kansas cow was yielding 90 pounds of butter per annum this herd by good feed and good care was made to yield an average of 270 pounds of butter per annum. Considerable difference was noted in individuals. Four cows, or 14 per cent of the herd, ran us in debt for their feed. Five of the least profitable cows, while they paid for their feed, brought in an income above cost of feed of \$35 per head. The most profitable five cows brought an income above cost of feed of \$38.89, or 369 per cent more than the former. As far as dairy products are concerned one average cow of the most profitable five lacks only \$2.86 of bringing in as much net cash as the whole five of the least profitable cows.

The experience of the Agricultural College has also been the experience of observing dairymen in various parts of the state. Mr. A. H. Diehl, Pearl, Kan., found from a year's record that his best cow produced 37 pounds of butter, while the average of the herd was only 24 pounds of butter, or a difference of 167 pounds. With butter at 15c per lb., Mr. Diehl's best cow brought \$16 per annum more than the average of the herd.

Mr. E. S. Cowles, Sibley, Kan., milks about 25 cows. For the month of March, '99, he found that the average net profit from his whole herd was \$2.30. The net profit from his poorest four cows was 55c per head, while the net profit from his best four cows was \$5.15 per head.

Mr. Chas. C. Lewis, Baldwin, Kan., in a very carefully kept record found that his best cow produced 458 pounds of butter in 12 months and his poorest cow, 267, the average of the herd being 307. Not counting the value of the calf, the receipts for dairy products less the cost of the feed was \$25.65 in case of the best cow, \$30.11 for the average cow and \$12.72 for the poorest cow. This means that the best cow is worth 74 per cent more than his average cow and 33 per cent more than his poorest cow.

This difference between individuals is undoubtedly greater in common or grade cows than in a herd of pure bloods that have been bred and selected along dairy lines for a series of years. The very fact that there is such a great difference shows the possibilities even with scrub cows. This brings up very naturally and unavoidably to a discussion of the

SCRUB DAIRYMAN.

This particular individual is rather hard to define. I presume he does not exist in Missouri at all. He is always associated with scrub cows, although the latter are not necessarily associated with him. His qualities will doubtless be best understood by a discussion of some of his characteristics.

A STINGY FEEDER.—The scrub dairyman attempts to be economical by feeding meager rations. He forgets that about 90 per cent of all the feed a cow will consume is needed to maintain the wear and tear on her system, and the profit comes from that eaten over and above this amount.

Hood Farm Milk Fever Cure

(Improved Scrub Treatment Complete.)

"...and I am to assure you all never sick with Milk Fever the second day after calving. I procured Hood Farm Milk Fever Cure, and applied according to directions. In six hours she was decidedly better and her recovery was rapid and complete. Another cow had the same disease. I applied the same treatment. Both cows are now doing good work in the dairy. Since then I have saved still another cow."

J. F. HEMMERWAY, Chelsea, Vt., Oct. 26, 1900.

Price \$2.50. By express to any railroad express point in the United States, \$2.75. On orders amounting to \$5, we prepay express. We shall be pleased to answer all inquiries relative to care of dairy cows and swine. Mention this paper.

C. I. HOOD & CO., Lowell, Mass.

Since the cow is selfish enough to take what she needs first the man who feeds only 70 per cent can not expect over 10 per cent profit. This system of false economy is really the worse kind of extravagance. The experience of the Kansas Agricultural College is that under the same conditions, the most profitable cows eat the most. The best cow in the herd consumed \$3.7 more feed than the poorest cow; the average of the most profitable five cows consumed \$4.0 more per head than the average of the least profitable of the five cows.

AN UNBELIEVER IN BALANCED RATIONS.—The term "balanced ration" is a mysterious something that the scrub dairyman knows nothing about. He sometimes asks what kind of a chemical compound is it? One of our Kansas dairymen made a statement a short time ago that he took no stock in balanced rations. "Corn is the best feed I know of," says he. When asked what roughness he fed with corn he replied "alfalfa." It so happens that corn and alfalfa make a balanced ration, but this scrub dairyman did not know it. Surely we cannot expect a cow to manufacture a good quantity of milk unless we supply her with the right kind of raw material from which to manufacture that milk. The farmer who has employed a carpenter to build him a barn would be foolish to go to town and knowingly bring home all the lumber that was needed to construct the barn, but only half enough nails. After the carpenter had used up the nails he would have to cease work until he was furnished with a new supply. No less foolish is the man who employs a cow to manufacture milk and furnishes her with a great abundance, or even an excess of part of the elements needed for its manufacture, but supplies her with only half of the absolutely essential element, namely, protein, without which she cannot possibly transform all the other elements into milk. This subject, protein, is doubtless familiar to all in attendance at this meeting, and I need not linger here to discuss it further. The question that confronts us now is what can we grow on the farm to supply the protein and not be obliged to buy high-priced concentrates. Last year we discussed the subject of alfalfa, and no doubt this is the best roughness where it can be grown, and of late years many of our Kansas farmers have succeeded in growing it where heretofore it has been considered a failure. But where alfalfa is not available the following rations indicate what may be grown to furnish the desired protein and what amounts are needed for a daily ration for an average cow.

1. Twenty-five pounds of red clover, with 8 to 10 pounds of grain, composed of 1 part corn and 3 parts oats.

2. Twenty-five pounds of red clover with 8 to 10 pounds of grain, composed of 6 parts corn and 1 part soy beans.

3. Twenty pounds of red clover and timothy, with 10 pounds of grain, composed of 7 parts oats and 3 parts soy beans.

Where oats and soy beans are not available and it is desired to substitute mill feeds, a grain ration of 3 parts bran and 1 part corn may be fed with red clover and a mixture of 1 part bran, 2 parts corn chop and 2 parts oil meal may be used with red clover and timothy. While the above rations do not begin to cover all the possible combinations, they probably meet most of the conditions existing on most of the farms in Missouri and eastern Kansas.

BELIEVES IN FEEDING BUTTER FAT INTO MILK.—In spite of the fact that many careful experiments, including the feeding of nearly pure fat to cows, have repeatedly shown that the test of a cow is an individuality of the animal and is not permanently affected by feed. Any change of feed or surroundings may cause a temporary fluctuation in the per cent of fat, and in so far as a feed may cause a cow to go dry it may have a direct influence in increasing the per cent of fat, since cows give considerably richer milk near the close of the lactation period.

The following inquiry from an Iowa correspondent is a sample of what many Kansas farmers are asking and concerning which there is considerable dispute. This correspondent says: "Did you in your experiment settle the oft-disputed question as to whether the milk of well-fed cows is richer than the starved animal seen standing on the north side of a barbed wire fence with the wind blowing and the thermometer below zero?" Unfortunately we do not have a test of our cows previous to their arrival at the college, and we cannot therefore tell just what influence a barbed wire exerted on the composition of the milk, but we do know of their performance since their arrival at college. Our monthly records show that outside of variations due to shipping and increasing lactation period the tests of the first month were practically the same as the months that followed. The next question that is asked and which is doubtless implied in the above inquiry, is whether a whole year of good feeding would in any way affect the cow so that she would give richer milk the second year. A number of cows in the college herd, being rather poor individuals, were sold before completing their second year's record, but there are ten cows that have gone far enough on their second year's record to make a comparison. The following table gives the results of these ten cows for corresponding portions of the lactation period:

No. of Test Test Difference Cow. in 1898. in 1899. in 1898. in 1899.

4. 4.74 4.82 .08

5. 3.69 3.69 .00

11. 5.04 4.6 .43

33. 3.69 3.58 -.02

9. 4.03 4.11 .08

1. 3.71 3.75 .04

7. 4.12 4.00 -.12

6. 3.23 3.27 .04

3. 3.98 3.65 -.32

30. 4.00 3.90 -.10

Average 3.74

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Horticulture.

HORTICULTURAL TALKS.

QUESTIONS AND ANSWERS.—W. E. S., the winter Rambo apple I have not seen in the West. I had it in the East, but failed to bring it along when I came West. It was not quite as large as the common one, darker in color and nearly sweet. It would keep until spring.

Cooper's Early White I had once, but lost it. I know that it is a favorite in Eastern Kansas. Lowell I have not here, but in the East it was one of my favorite summer apples.

E. L., all your strawberry beds need now is a mulching with straw to keep the fruit clean.

N. M. O., the reason the Parker Earle strawberry plants are higher in price than most others is because they make so few plants. With me they seem inclined to make fruit instead of runners. I can more easily raise 1,000 Crescent or Warfield plants than 100 Parker Earle.

R. E. Those knobs or knot-like protuberances on the Romanite apple are not indications of disease, but the nature of it. I saw them on this apple seventy years ago, just as they are now.

MISSING LINK APPLES.—I brought two specimens of this home with me from the meeting at Farmington. The one of 1899, we ate New Year's Day, and it was as sound as the day it was picked from the tree. The one of 1900 we will keep as long as it keeps sound. The new one is a pretty red, while the old one was turned yellow. It was nearly sweet, and of good quality. I have good sized Ben Davis grafted to this, which may have some fruit on them in the coming year.

THE BELGIAN HARE.—I am no stock man, and am at war with our "cotton-tails." I run them down on the field and at the table they are pretty fair eating. As to the Belgian Hare, I know but little about it, having seen but two of them; but the many inquiries (people seem to think I ought to know it all) induced me to inquire of one who does things right when he undertakes them. The following is what he writes:

"The Belgian Hare is not in any way to be compared with our common hares, called rabbits. The Belgian is finer flavored, white fleshed and more delicate in texture and much larger, weighing from six to ten pounds when full grown. It is quite an acquisition to our meat product, besides being an interesting pet for our young folks.

"To breed successfully any building that can be well ventilated in summer and kept moderately warm in winter, divided into stalls, three by four feet, using wire netting, one inch mesh, with a box 12x18 inches (portable) for breeding hutches, will answer the purpose. By thus keeping the does confined, you can control the breeding, and with much better results than when left to run at large. The bucks should have separate stalls, and when the doe is old enough to mate (six months) gently put the buck into her stall. If she is in mating condition, she will soon show it; if not, remove the buck and in a few days try again until satisfied. Thirty days from date of mating is the term of gestation. When the young are four weeks old, the doe may be again mated, if desirable, and at the age of five or six weeks the young can be moved to separate quarters.

"The feeding of the young after they are weaned, or in fact as soon as they emerge from the breeding box in search for food is perhaps the most important point to be watched. Clean clover hay and oats are the best foods to give them. They are not likely to eat more than is good for them; but if fed green food they may eat to excess and digestion will be so disturbed as to cause a watery excretion from the mouth, weakening their constitution, and in many instances proving fatal. When such conditions appear give sweet milk to drink and feed dry food until the watering at the mouth disappears. When five or six months old they will eat anything that a sheep will eat. Plenty of clean water to drink and regularity in feeding are important factors.

"If it is desirable to have them run at large in summer and breed at will, the resistants are simply an enclosure with a fence five or six feet high, using wire netting of inch mesh for the two feet next to the ground, and the two-inch mesh netting above. All posts should be capped 15 or 18 inches square, with galvanized caps to prevent cats from climbing into the enclosures. Netting two feet wide should be stretched flat on the ground inside the fence to prevent the hares digging under the fence. A building to shelter them from the hot sun and rain should be provided, and hutches as before described, buried so as to be entirely dry and dark except the entrance hole. This provision is necessary otherwise they will burrow under ground, which seems to be their natural mode.

"As to the profitability of the enterprise, much depends on the care and judgment of the person in charge, and the proximity to large cities. It is apparently a new enterprise, and people must be educated to the difference between a well-bred Belgian hare and a skinny wild rabbit, which will require some time and perseverance by the breeder.

"One precaution I would yet state to those contemplating embarking in the enterprise; protect all trees within the enclosure with wire netting. One spring we turned out 500 in a half acre containing a plain orchard, and if we had not enclosed the trunks of the trees with netted wire, every tree would have been barked."

Here, now, is almost a book on Belgian Hare breeding, and if someone who is in the business thinks it worth a pair of these animals, I will be willing to accept them as a gift. I do not own a living animal, and am not a stockman, but I am tempted to try these.

In conclusion, I will give to any one a pointer in this line, that may never have entered into the imagination of any breeder, that I believe will work wonders. A stamped envelope, properly addressed will get the idea from me, if the writer promises to keep the scheme a secret until fully tested and reported to me. If a success the public shall have it free.

Bluffton, Mo. SAMUEL MILLER.

SEEDS.—We call particular attention to the ad. of Frank H. Battles, which appears elsewhere in this issue. Mr. Battles is a well-known dealer in reliable seeds, and has a special plan by which money can be made during the winter months by any who have a little time to give to the matter. Write him at Rochester, N. Y., for full particulars, catalog, etc., which he will very gladly send. We hope a large number of our readers will avail themselves of this opportunity.

A MISSOURI ORCHARD.

De Witt C. Wing, formerly of Cooper County, Mo., is now attending the Illinois Agricultural College. Recently in addressing the Students' Agricultural Club he told the story of a Missouri Orchard. The following is a synopsis of the address:

About fifteen years ago a very active interest was developed in the apple business in Central Missouri, and to this day that interest is still prevalent, as may be inferred when it is observed that every year witnesses in that section the planting of hundreds of acres to apple trees. As it is true that necessity is the mother of invention, it also is true that farmers in that part of Missouri, from which the facts in this paper were gleaned, adopted fruit growing as a means of making a livelihood, having reaped abundant harvests of disappointment from cereal growing, though, of course, the fact that cereal growing proved unprofitable was no fault of the land or of the grains, but of the farmers themselves. The news heralded throughout the state from its southern section, familiarly known to horticulturalists as "the land of the big red apple," to the effect that in the production of apples lurked dazzling fortunes, finally inoculated other parts of Missouri, and my father, being receptive to beneficial influences, became thoroughly saturated, as it were, with the prevailing enthusiasm. He had read that an apple grower produced in one season \$300 worth of fruit from one acre, and this at no expense, so he figured that if one acre produced \$300 worth of fruit, 15 acres, for instance, would produce, under similar circumstances, \$3,000 worth of fruit. The figures were so convincing that he could not resist them. And this led him to the consideration of a location for the orchard which should return such fabulous profits.

The selection was a matter of considerable interest to the neighbors, many of whom discussed it with my father until all were out of breath, yet there was substantial unanimity upon one point; that was that the orchard should be planted on poor land—it would do no good on rich soil. My father, when he contemplated engaging in a new enterprise of any kind or the growing of a new crop, talked freely with the neighbors about it, eliciting their views, which in many cases were of value. Hence when he came to the selection of a location for the orchard there was liberal debate upon the subject. In one corner of the 400-acre farm there was a thin, yellow clay, worn out piece of land consisting of about 15 acres. It was by far the poorest land on the farm, if not in the county, and long before was declared unfit for the production of any kind of crops. It was so depleted, so washed and abused in general that one could hardly raise an umbrella on it. Moreover, it was so hard and tough that in manipulating it with ordinary implements the team was exhausted and the cutting parts of the tools were impaired.

But it was agreed that the tract was an ideal place for a commercial orchard. Of course, the numerous ditches and gravel knobs with which it was decorated cut no figure; they but added to its general adaptability to apple production. Having selected the location already decided, the purchase of nursery stock resolved itself into a problem worthy the same intelligent and scientific consideration given the previous proposition. When my father made known his desire to get a bill of trees he was semi-daily called on by a transient corps of tree peddlers, each of whom had the very best trees obtainable, proven, of course, by dashing lithographs for which purchasers of trees lavishly paid. After hearing the stories so politely presented by the affable vendors of nursery wares, my father concluded it time to bite the bait—and hit. The price paid for the two-year-old trees was 20 cents each; the varieties purchased were Ben Davis, Grimes' Golden, Smith Cider, Winesap, Jonathan and Gano, Ben Davis largely predominating; it being everywhere regarded as the most profitable commercial apple then under cultivation—or non-cultivation, I would better say. The trees were purchased in the fall and heeled-in over winter in the garden, where the rabbits conducted nocturnal Bradley-Martin balls, using the tender bark of the unprotected trees for refreshments. The following spring, as soon as the ground became friable, three men, of whom I was not one, were delegated to plant the trees, having properly staked off the tract in 32-foot squares. The holes dug were very spacious, being deep and wide, and as we have learned that the ground was quite tough, the force accomplished seemingly insignificant results in a day. If I remember aright, the three men planted but 30 trees per day. Of course, there was no such thing as pruning before setting the trees. They were placed haphazardly in the holes and the cloudy earth previously excavated placed upon the entangled roots. After the trees were planted the planters gashed upon their splendid work and blotted with smiles, remarking that it was well done and would bear fruit—as, strange to say, it did. The trees were pretty lusty specimens, and though each cost what should have purchased three trees, they must have been worth the money under the circumstances already partially detailed.

We grew corn and oats alternately among the trees until the soil refused to produce either, whereupon it was decided that nature should finish the work. The cultivation given the trees consisted of that given the corn crops grown among them. This kind of cultivation contributed to the well rounded out misfortune of the trees, for it resulted in "barking" many of them and cutting the surface roots. Then an occasional windstorm took a shot at them, uprooting a goodly number. During the summer the hogs, sheep and cattle were permitted to run in the orchard, and even a couple of young mules were not denied the privilege. The hogs, razor-backs of the ante-bellum type, busted themselves exposing the roots of the trees to the burning sun, the sheep nipped off all branches in their reach, while an industrious billy goat, the Moses of the flock, leading the sheep into what to him seemed the garden of Eden, waxed fat on the trunks of the sorry trees. This enterprising animal, enjoying the distinction of being able to devour tin cans, grindstones, sole leather, plow shares and other portable articles too numerous to mention, admonished other animals about him to utilize the provender represented by the poor little apple trees. Despite all this, however, which befit that orchard during the summer most of the trees entered winter with a fair chance of pulling through. But when winter came the rabbits did an apple tree business of startling proportions, and it was an uncommon thing to see trees deprived of bark from the ground upward to the extent of a foot, and in many cases the barking extended entirely round the



The seed you get is the best productive. All varieties selected from vigorous stock. Send us your new Garden and Flower Guide. Every page of the guide is filled with valuable information on what you intend to grow.

Box No. 1000 Rochester, N. Y.

TO EXTERMINATE SAN JOSE SCALE.

Nashville, Ill., January 5.—Upon the advice of the Illinois State Horticultural Society, the agricultural department of the state university has selected Washington County as one of the desirable locations for carrying on their experiments with remedies for the extermination of the San Jose scale, a pest that has recently attacked the orchards of Illinois and threatens to do widespread damage unless it is checked. At the last session of the State Legislature a sum was provided to defray the expenses of carrying on the experiments. Students of the university will establish an experiment station in some portion of the county, and begin working upon the pest at once.

New catalog of Green's Nursery Company, Rochester, N. Y. We have just received this attractive catalog, well illustrated with lithograph covers, illustrating four varieties of peach, four varieties of apple and four varieties of Japan plums. Green's Nursery Company was established over twenty years ago, and has pleased patrons in every state and territory. Rochester trees are famous all over this country. This firm makes a specialty of plums, apples, peaches, cherries, small fruits and ornamental plants, trees and vines; also issues two catalogs, one devoted to fruits and another devoted to ornamental trees, plants and vines; either or both catalogs will be sent free on application.

THE CORK TREE.

The cork tree is an evergreen, an oak, Quercus suber, about the size of the apple tree and grown largely in Spain for commercial use. The bark is stripped in order to obtain the cork, which is soaked in water and then dried. When the bark is peeled off, the tree begins to grow another cork skin, and each new one is better than the last; so the older the tree the better the cork. The tree is said to live about forty years and is so strong that it makes them that they often live to the age of 200 years.—Cal. Fruit Grower.

J. R. RATEKINS & SON'S "Book on Corn Growing" is worth 50 bushels of corn to any farmer at all interested in corn growing, even if only a few acres. It will do the business. All you have to do is to mail 4 cents to pay postage and it will be mailed to you free. See advertisement page 3.

The Apiary.

THE 1900 BEE STORY.

Editor RURAL WORLD: The bee and honey story for the year just closed is a short one, and not a very sweet account. Here in Northeast Missouri the season was not favorable. Many swarms failed to secure any surplus, and some of them have scant stores for themselves. The same is true in other states. I made inquiry in Iowa and Nebraska, and learn of the great shortage in honey. Only a few new swarms are reported during the year. One apiculturist in Sarpy County, Nebraska, informed me that he harvested 500 pounds instead of an average of three tons. So it is certain that we will be in the short record for our prized sweetens. In the meantime we will have to call up our reserve of good Missouri sorghum. JASPER BLINES.

Clark County, Mo.

MANAGEMENT OF THE APIARY.

Editor RURAL WORLD: It is often suggested that all articles on practical subjects pertaining to the Apairy, must be "timely written," if they are to accomplish the greatest good to the greatest number of people. I do not agree fully with this contention, the beginner in api-culture should study the business in season, and out of season, that may be able to meet all the emergencies that may arise in his work in the apairy.

THE HONEY BEE, when in normal condition, may be relied on as being regular in her habits, but a colony of bees is liable to become demoralized as the result of several causes—among which I may mention attempts to rob each other, the accidental mingling of alien bees in the colony, and in some cases of an over proportion of very old bees in the colony, resulting in queenlessness, etc.

Now the orchard about which the foregoing has been hurriedly written illustrates how ordering used to be done in Missouri. Much of the same kind is done there now, and a great many Illinois orchardists are progressive enough to practice the Missouri system. Despite all the disadvantages to which our orchard was subjected it yielded returns which richly rewarded us for the exhilarating treatment we gave it during its apairy.

SPRING FEEDING.—The first warm days in the spring, when the bees are flying freely, I examine each colony carefully to ascertain if they have sufficient stores to last them till fruit blossoms appear. If any of the colonies are found short of stores I supply their wants by drawing from other colonies which have stores to spare, and if no stores can be spared by other colonies, I move the colonies that are short of stores with sugar syrup. There are many kinds of "bee feeders," and I have several kinds that are excellent in way of handiness, and as an ordinary fruit can may be made to serve a good purpose by filling it with syrup tying a thin cloth over its mouth, and inverting the can over the tops of the frames. Of course, an empty super or hive story must be set on the hive to give room for the can to sit upright under the hive cover.

THE NEXT STAGE.—When the apple blossoms are in full bloom and the bees are busily at work on the bloom, I give each colony a thorough examination to ascertain how they are progressing in brood rearing, and to see that each colony has a laying queen at its head. If any of them are found queenless they are supplied with a frame containing brood in all stages of development, drawn from some strong colony that can spare it, and thus provide them the means to rear for themselves a young queen to take the place of the lost queen. Such colonies receive constant attention by giving them a frame of brood from such strong colonies as can best spare the loss, from time to time until they have a laying queen.

I have done better than this, if I get to the test. If any other man has done better than this let him report in the RURAL WORLD. I would like to hear from market gardeners who in 1901 get five or even six crops from the same piece of ground and how they do it.

THESE NEXT STAGE.—When the apple blossoms are in full bloom and the bees are busily at work on the bloom, I give each colony a thorough examination to ascertain how they are progressing in brood rearing, and to see that each colony has a laying queen at its head. If any of them are found queenless they are supplied with a frame containing brood in all stages of development, drawn from some strong colony that can spare it, and thus provide them the means to rear for themselves a young queen to take the place of the lost queen. Such colonies receive constant attention by giving them a frame of brood from such strong colonies as can best spare the loss, from time to time until they have a laying queen.

IT IS PROPER TO SAY HERE THAT IN A CLIMATE AS FAR NORTH AS THIS PLAN IS NOT ALWAYS A SUCCESS, BECAUSE OF COLD, BACKWARD SPRINGS; HENCE MOST EXPERIENCED APICULTURISTS IN NORTHERN LOCALITIES UNITE ALL QUEENLESS COLONIES FOUND IN THE SPRING WITH WEAK COLONIES THAT HAVE QUEENS. THOSE OF US WHO CHIP THE WINGS OF OUR QUEENS IN ORDER TO BETTER CONTROL THE SWARMS AT SWARMING TIME, PERFORM THE OPERATION AT THIS TIME UNTIL THEY HAVE A LAYING QUEEN.

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Live Stock.

Jan. 17-18.—Combination Shorthorn sale at Kansas City. Neal N. Gallagher, Highland-Chinas, Kan., and others.

Jan. 21.—Dr. Hollowell, Farmer City, Ill. Poland-Chinas.

Jan. 22, 23, 24 and 25.—T. F. B. Sotham, Chillicothe, Mo., and others, at Kansas City.

Jan. 26.—J. W. Funk, Heyworth, Ill. Poland-Chinas.

Jan. 27.—E. Axline, Oak Grove, Mo. Poland-Chinas.

Jan. 28.—Burgess Bros., Bement, Ill. Poland-Chinas.

Feb. 1.—A. G. Woodbury, Danville, Ill. Poland-Chinas.

Feb. 6.—H. E. Ware, Douglas, Ill. Poland-Chinas.

Feb. 6-7-8.—Combination Galloway cattle Omaha, Neb.

Feb. 6-7-8.—O. C. Calis, Novinger, Mo. Sale at Kansas City. Shorthorns.

Feb. 14.—Ed. Burroughs, El Paso, Ill. Poland-Chinas.

Feb. 15.—Preston & Wycoff, Rowe, Kan.

Feb. 16.—Combination Berkshire sale at Feb. 19-20.—Armour, Finkhouser and others, Kansas City. Herefords.

Feb. 22.—Ziegler Bros., Poland-Chinas.

March 5.—L. M. Monsees & Sons, Smithton, Mo. Jacks, stallions, mules and Ponies.

March 5, 1901.—T. J. Wornell, Mosby, Mo. Shorthorn Ranch, Cox, Mo.

March 6.—A. L. Ranch, Winchester, Ky., and E. K. Thomas, North Middlestown, Ky. Sale at Kansas City. Shorthorns.

March 12.—Gifford Bros., Manhattan, Kan.

March 13.—H. O. Tudor, Holton, Kan. Shorthorns.

March 17-22.—Combination Galloway cattle Chicago, Ill.

HEREFORD SALE DATES AT KANSAS CITY, MO.

Jan. 15-16.—Gudgel & Simpson, Herefords.

Feb. 5-6.—Steel Bros., Eagle & Son, Miller & Balch, and E. Corkins, Herefords and others. A. Stannard and others, Herefords.

April 2-3.—Colin Cameron, Herefords.

Feb. 17-22.—Armour and others, Herefords.

CATTLE DISEASE IN TEXAS.

San Antonio, Tex., January 10.—State Veterinarian Falsette has just returned from Kendall County, where he has been to inspect the cattle of J. A. Jackson, which have been dying at the rate of one head a day for two months. He reports that the cattle are dying from worms in the lungs, which affect them much as consumption does a human. There is no known cure for the disease, which has appeared in a number of herds in the state.

SCARCITY OF OLD STEERS.

In times when any industry is prosperous, there are always croakers who predict overproduction, overstocked markets and consequent lower prices; and who throw such like cold-water dashes on men of more hopeful temperament and view. Revival of the cattle industry, with good prices for breeding stock and with farmers desirous of owning better bulls for grading up their herds, make these croakers ominously shake their heads and predict "slumps" in the cattle market. But let such philosophize on the following from the Denver "Record-Stockman":

"The scarcity of old steers in the market of this country, so noticeable a year ago, continues, and this is one feature that shows conclusively that the country is keeping the cattle supply close up. Fully 90 per cent of the steers offered on this market are not over two years of age. The bulk of the offerings are yearlings."

Such reports to the thinking stockmen are evidences that overproduction of cattle is not a thing of the near future, when it is added to this fact that ranges are every year becoming more restricted and that our best beef cattle, which the market is demanding, will be fed in small lots and on the farm rather than on the ranges.

CATTLE FOR BEEF PRODUCTION.

From a Paper by Prof. Thos. Shaw, Read Before Minn. Live Stock Breeders' Association, Jan. 8, 1901.

On a given area of farming land it will be found that, even under existing conditions, when the prices of beef are relatively high, a greater profit can be obtained from cattle kept for milk or for milk and meat than for meat only. But the fact remains that even on some arable farms, if cattle are to be grown at all, they must be grown for meat production only. The conditions that relate to labor are such that cows cannot be milked, nor can the milk be cared for in the best fashion. Some of these have relatively large areas for pastures, as in the northern part of the state, and on others the pasture area is limited, although other food is grown in great abundance. Under these conditions, which breeds should be kept?

Four breeds will fill the bill reasonably well, but not equally well. These are the Shorthorn, Hereford, Aberdeen-Angus and Galloway. Under the conditions first named, that is, when the areas of pasture are large and of cultivated land, small Galloways will probably fill the bill better than the others; especially will this be true where the animals are considerably exposed in rough weather. The dams may be of mixed breeding, the sires being Galloway. The young animals would suck their dams, and at 18 months or at 30 months would be sold for fattening on farms where the necessary food can be grown. High-grade Galloways fatten well and produce meat that is eagerly sought in good markets. On the second class of farms named, the Aberdeen-Angus would probably prove the most satisfactory, because of the excellence of the meat produced. But when grown under such conditions, the aim should be to grow meat of the best quality. The young animals should be raised on corn, and then put upon the market at from 24 to 30 months. They should never be allowed to stand still in growth or to become lean and fat. The means by which they must get all the meat and all the fat required will vary in kind, and whenever the need arises, the profit comes through the excellence of the meat product and the good price it brings because of high finish. Only the skilled feeder can grow such meat.

CATARRH CANNOT BE CURED

with LOCAL APPLICATIONS, as they cannot reach the seat of the disease. Catarrh is a blood or constitutional disease and only a general cure can be expected to internal remedies. Hall's Catarrh Cure is taken internally, and acts directly on the blood and mucous membranes. Hall's Catarrh Cure is not a medical medicine. It is made by one of the best physicians in this country for years, and is a regular prescription. It is composed of the best tonics known, combined with the best herbs, roots, and aromatic drugs on the mucous surfaces. The perfect combination of the two ingredients is what produces such wonderful results in curing Catarrh. Send for testimonials.

F. J. CHENYER & CO., Props., Toledo, Ohio. Sold by druggists; price, 75c.

Hall's Family Pills are the best.

PROGRAM.

Fourth Annual Meeting of the General Shorthorn Breeders' Association of America, to be held in the Assembly Hall Live Stock Exchange Building, Kansas City, Mo., Tuesday and Wednesday, January 20 and 21, 1901.

TUESDAY, 10 A. M.—Address of welcome, G. M. Walden, President Kansas City Live Stock Exchange, Kansas City, Mo. Response, H. C. Duncan, Osborn, Mo. President's address, Hon. S. F. Lockridge, Greencastle, Ind.

TUESDAY, 1 P. M.—How to Breed and Feed to Produce Junior Champions, George Bothwell, Nettleton, Mo.; Shorthorns in the Southwest and Range Districts, V. O. Hildreth, Aledo, Texas; The Relation of the Shorthorn Breeders of Canada to Those of the United States, W. D. Platt, Hamilton, Ontario, Canada; Health of the Herd, Common Aliments, Their Diagnosis and Treatment, O. O. Wolf, M. D. C., Ottawa, Kas.; Selection, Care and Management of the Herd, Bull, C. C. Norton, Corning, Iowa; Best Methods of Disposing of the Surplus of the Herd and Practical Suggestions for Making a Successful Public Sale, F. A. Edwards.

WEDNESDAY, 9 A. M.—Selecting, Exhibiting and Fitting Shorthorns, John E. Robbins, Horace, Ind.; The Study of Shorthorn History, Alvin H. Sanders, managing editor "Breeders' Gazette," Chicago, Ill.; Feed and Care of the Herd from the Practical Standpoint of Profit and Loss, B. C. Cowan, New Point, Mo.; Twentieth Century Demand for Shorthorns, and How Best to Meet It, John McDowell, associate editor "Live Stock Indicator" and "Iowa Homestead," Des Moines, Iowa; Judging Shorthorns and the Educational Feature of Show Yard Exhibits, C. F. Curtis, director and professor of agriculture, Iowa Agricultural College Experiment Station, Ames, Iowa.

WEDNESDAY, 1 P. M.—The Shorthorn in the Feed Lot from the Standpoint of the Practical Feeder, Hon. T. M. Potter, Peabody, Kas.; Suggestions and Advice for the Benefit and Encouragement of Beginners and Owners of Small Herds, Senator W. A. Harris, Linwood, Kas.; The Shorthorn, the Cow for the American Farmer, J. H. Pickrell, secretary of the American Shorthorn Breeders' Association, Springfield, Ill.; The Tabulation of Pedigrees, Its Admissibility and Practicality, J. F. True, Newman, Kas.; How to Encourage Range Men to Use Short-horn Bulls, L. A. Allen, Kansas City, Mo. Election of officers and business session. Special reduced rates have been applied for on the certificate plan on all railroads.

A cordial invitation is extended to all interested in improved cattle, improved methods, and Shorthorns in particular, to attend this meeting.

S. F. LOCKRIDGE, President, Greencastle, Ind. GEO. P. BELLows, Secretary, Maryville, Mo.

MISSOURI BEEF CATTLE.

The following items from the "National Stock Reporter" are full evidences that Missouri cattle shippers are coming to the St. Louis market with their stock in increasing numbers, and that good beef cattle are in demand in this market. If farmers will secure good bulls and judiciously grade up their herds, studying the type of cattle best suited to their needs and locality, and strictly adhere to the selection, whether it be the Shorthorn, Hereford or Polled-Angus, such reports will be even more frequent than now. The outlook is promising for the cattlemen.

J. D. Button of Audrain County, Mo., was here with a consignment of cattle, including 1,050 pound steers sold at \$4.25 a pound.

E. B. James, shipping from Moniteau County, Mo., had in a load of 970 pound feeding steers with sufficient quality to bring \$4.25.

Charles Niemeyer of Saline County, Mo., had a car of cattle on the market consisting of 1,290 pound steers, sold at \$4.15, and a tasty 873-pound butcher heifers at \$4.65.

C. Anderson of Boone County, Mo., was on the market with 1,040-pound cows and heifers, sold at \$4.15, and 1,296-pound cows at \$4.

D. Griffin of Marion County, Mo., marketed 1,005-pound feeding steers at \$4.25.

B. B. Clark, one of the best known cattlemen in Montgomery County, Mo., was at the yards with a nicely finished load of 297-pound butcher heifers that brought \$4.40.

J. E. Davis, a prominent Green County, Mo., cattlemen had in a load of highly graded 747-pound stock steers that topped the branch of the trade at \$4.50.

THE HORSE AND MULE MARKET.

The strong condition of the horse and mule market at the St. Louis National Stock Yards is shown by the following by "Live Stock Reporter":

MULES.—Southern buyers are purchasing a higher quality of mules for cotton work than ever before in the history of that trade. When buyers from the South appeared at market this season for their mules, they found them higher than in half a dozen years. Fifteen to 15.1 hand mules which they had bought thousands of three and four years ago at \$60 to \$80, they found had risen to \$100 to \$120 for the majority of them, and more for others. Instead of buying a commoner class to "cut the average" of prices they have gone to the market one better and even bought choice ones, some buyers reaching out for extra heavy weight and hair in their purchases and paying up as high as \$125 to \$150. They have evidently figured that if they must pay higher prices at all, that they will pay a little more and get the best there is for the purpose. The South is having an era of progress and profit, which is forcibly attested by its ability to pay the advanced prices for mules.

The advance in mule prices from the basis of two weeks ago has placed the market on a very high basis as compared with a year ago. Buyers who have not been at market for some time must stay awhile and look around at other buyers purchasing at the advanced scale before they become accustomed to the situation and are ready to operate. To tell a Southern buyer two years back that he would pay the prices that are now current, would have incited his derision, but now that cotton is higher and the planters have money enough to pay the advance, caused mainly by the shortage in mules, there is little difference in the long run.

Higher priced cotton always made higher priced mules and dealers all agree that the market is better for all concerned, even the consumer, when on a higher basis. The margin of speculation and profit is wider.

HORSES.—During no previous period has the demand been better, or the prices

more profitable for small horses, known as British cavalry animals, than this week. Not that values were any higher than the week before, for it would be impossible for them to further advance without those holding contracts absolutely eliminating the margin of profit between the purchase and the contract price; but all the specific orders for the kind were centered at this market and every animal with a reasonable chance of suitability was wanted by several interests and rapidly taken. On the "sure shots" it was only a question of who got the bid into the top notch first; on the speculative kinds, the competition was tight. The top offerings were taken at \$90 to \$95. At the latter price there were only a small proportion negotiated, but at \$90 to \$95 the sales were numerous and at \$90 to \$95 they were plentiful. G. E. CLARK.

CLAY CO., N. W. MO.—The sheep industry is looking up in this country. Stockmen are sending out west for sheep to start their flocks. M. D. GOW.

PUTNAM CO., N. E. MO.—There is a shortage in hogs, and a great demand for young hogs to keep over for summer. Many farmers have no hogs.

N. C. WYCKOFF.

GENRY CO., N. W. MO.—There were more mares born in 1900 than in 1899. Cattle are good property. In fact, all kinds of stock bring good prices.

CHAS. S. ALLEN.

OZARK CO., S. CENTRAL MO.—Horses and mules are scarce and high. Cattle are small, mostly two-year-olds. Milk cows are plentiful, and not worth as much as this time last year.

RILEY COMPTON.

SCHUYLER CO., N. E. MO.—There has been an increase in horse and mule costs; also in cattle, there are more calves and feeding cattle, fewer of the latter having been sold in the fall markets than usual.

R. C. HOLLEY.

SHANNON CO., S. E. MO.—Sheep have been exported from the county in excess of any previous year. There have been large sales of mules recently, and hogs have been decreased by disease.

J. E. HEATON.

CHRISTIAN CO., S. E. MO.—Some stock is dying, the disease is supposed to be black leg. The winter has been exceptionally mild. Stock is in fine condition and still on pasture and half feed.

M. L. KEITHLEY.

LAWRENCE CO., S. E. MO.—Horses, mules and cattle are in good condition, owing to the open fall and winter. Milk cows are being increased, while other cattle are not. Hogs are dying and are being neglected.

A. R. MCNATT.

OREGON CO., W. CENTRAL MO.—There has been a large number of mules sold out of the county this fall and winter, and there has been a decrease in the number of cattle. There are less hogs in the county than there has been for several years.

W. F. FREY.

RIPLEY CO., S. E. MO.—Mules have been shipped out of the county in considerable numbers and they have advanced in price. Cattle, sheep and hogs have improved in the past year, owing to more interest taken in breeding them.

W. M. RICE.

STOCK NOTES.

T. F. B. SOTHAM wires the RURAL WORLD that the demand for catalogs of the great Hereford sale to be held next week, Jan. 22-23, at Kansas City, has exhausted the supply and asks us to urge upon our readers the importance of bringing with them to the sale the copies they have received. They will please bear this in mind.

A. DEHORNER.—We take pleasure in calling the attention of our readers to the reappearance in our columns of the advertisement of the Guarantee Remedy Co. This company offers our readers a guaranteed article for dehorning cattle. It is simple, harmless, practically painless and absolutely certain. It is the most humane and effective method yet discovered for dehorning cattle. A feature which commends it also is that it is comparatively inexpensive.

The proprietors are among the most reliable business men of Council Bluffs, Ia., and will do exactly what they agree to do. We have reliable information direct from their house to the fact that the Guarantee Company is thoroughly reliable, both financially and otherwise. Do not forget to look up the advertisement of the Guarantee Company in this paper.

MISSOURI JACKS IN WASHINGTON.

The "Northwest Farm and Home," published at Seattle, Wash., says: David W. Loftin of Kilkitat County, Wash., went east last spring with two carloads of range horses, which he sold at Memphis, Tenn., and Springfield, Mo., averaging \$115 per head. He invested his money in jacks and jennets.

Among his purchases are Sampson, bred on C. C. Huff's famous jack farm; Fair Grove, Mo.; Young Rattler, a black Spanish jack bred on the farm of Charles Patterson, Pleasant Hope, Mo., and Henry, bred on the well known farm of John Graves, Dallas County, Mo.

RAISING PRIZE WINNING STEERS.

The grand champion carload of feeding steers at the recent stock show in Chicago were Galloways. They were high grade sires and from one-half and three-fourths Galloway cows. They were owned by La Jara Live Stock Association, which last year took the prize for feeding steers at the Denver show. Galloways seem especially adapted to range conditions and the cold climate. The manager of La Jara ranch, D. E. Newcomb, says: "They are as much at home in snowstorms as a polar bear." The dams of these calves were raised in the San Luis Valley and adjacent mountains at an altitude of 7,500 to 10,000 feet above sea level. The cattle run upon the ranch from April until about November 15, when they are put in an enclosed pasture and fed on native grasses.

The cost of raising them is very light. The calves were weaned the day they were shipped to Chicago and showed and weighed 40 pounds each. They were born in April and May. The bulls are turned in with the herd July 1, and taken away January 1. The winter pasture for all stock owned by this company is watered by artesian wells, which furnish an abundance of pure water. The cattle are handled by domesticated cowboys, good, honest eastern farmers' sons who handle the cattle as quietly as possible. Mr. Sot

Home Circle.

DON'T DEEPEN THE WRINKLES.
Is father's eyesight growing dim,
His form a little lower?
Is mother's hair a little gray,
Her step a little slower?
Is life's hill growing hard to climb?
Make not their pathway steeper;
Smooth out the furrows on their brows,
Oh, do not make them deeper.

There's nothing makes a face so young
As joy, youth's fairest token,
And nothing makes a face grow old
Like hearts that have been broken.
Take heed least deeds of thine should make
Thy mother be a weeper;
Stamp peace upon a father's brow,
Don't make the wrinkles deeper.

In doubtful pathways do not go,
Be tempted not to wander;
Grieve not the hearts that love you so,
But make their love grow fonder.
Much may thy parents borne for thee,
Now tend their tender keeper,
And let them Juan upon thy love,
Don't make the wrinkles deeper.

Be lavish with thy loving deeds,
Be patient, true and tender.
And make the path that引领 leads,
Aglow with earthly splendor.
Some day thy dear ones, stricken low,
Must yield to Death, the reaper;
And you will then be glad to know
You made no wrinkles deeper.

Written for the RURAL WORLD.
THEN AND NOW.

Somewhat it jars on my soul a bit to hear
people ridicule the years gone by. The
nineteenth century was a good century
from first to last, and the old days were
as necessary as the new.

Hazel Hill Farm, Iowa.

Written for the RURAL WORLD.
THE FARMER'S ATTIRE.

Nancy's ideas about the farmer's cleaning up and dressing to go to town are my sentiments exactly. How I would like to shake hands with her. If she were not so far on the other side of our great circle and so many between us. What woman can feel very proud riding to town and going among her friends, or entering elegant stores with a dirty, unkempt man, the soil of field and barns and marks of his occupation among the stock clinging to his attire? The contrast is certainly most vivid between him and the men he comes in contact with in city and town. He did not appear so when he went for a ride with his sweetheart before their marriage. He knew such a course would not win her love and respect. If the love and respect are worth winning they ought to be worth keeping.

True, we know clothes do not make the man, but they do very much improve his looks. Those he meets may know, too, that he can afford to wear better. If he wants to; so much the more reason that he should dress properly when appearing before others. Such knowledge does not in the least lessen the humiliation felt by his wife and family at the glances of disgust directed towards him when he appears in his dirty, dingy attire. We have often thought if "cleanliness next to Godliness," sometimes the town people must think many farmers were a very long way from it. Our theory is to always try to be so appropriately dressed that we need not attract undue attention, or cause comment, nor have contrasts made regarding us. We feel confident all the farm wives are glad to keep some clothes clean and ready for the husbands to wear when going to town. They can be clean and tidy even if their clothes are mended. To do that is not necessary to be extravagant or to run in debt.

MELL MINTURN.

WHAT A GIRL THINKS OF US.

How lovely the day is! But it is cold and clear, and the waves are rolling in the shore and making music as sweet as a lover's song in the evening in the moonlight.

I like to read the Home Circle letters—
as mother is an old member. I think the "Advice to Girls" is good. I am only a girl, so I enjoy all the advice I can get.

I think Mrs. Mary Anderson writes such good letters. "A Ramble," by Mrs. A. Fo, I think, is just splendid. I hope she will come again.

I had a nice sail in a small boat about 20 feet long, out on the large lake. The waves were so high I got quite frightened, but my friend said there was no danger. But up and down the "swells" the boat moved like duck.

Well, I hope you all had a "Merry Christmas" and a "Happy New Year."

GERTRUDE CARPENTER.

Watcom, Wash.

Written for the RURAL WORLD.
AN EMERGENCY BOX.

Though some farm homes can say Hello! Central and quickly "phone" the doctor, if the boy meets with some serious mishap at the woodpile, or the little darling gets severely burned or an accident befalls the head of the household that needs skilled medical treatment, yet many miles may intervene between the physician's home and that of the farmer, and "Old Dobbin's" best trot is the maximum rate of speed we can expect, the case ever so urgent. Then, too, many farm homes haven't telephone connection with the doctor's office, hence the great need of a box prepared for such times of exigency, and the added care of seeing that it is replenished when supplies become exhausted. Such remedies that can safely be handled by any father or mother save much suffering and expense of doctors' bills; for the delay of waiting for the family doctor often causes a wound to become so swollen and inflamed that it requires more and longer treatment.

This box should contain pieces of soft, old muslin or linen perfectly clean, some strong muslin suitable for bandages; some pieces of mosquito-netting and oiled paper or, better still, oiled silk, to be used when applying poultices, and to prevent the patient's clothing from becoming damp from the moist poultices, such dampness causing chill when the patient is in a weak condition; there should be a bottle of laudanum, one of alcohol, one of olive oil, one of witch hazel, a wide-mouthed bottle of powdered borax, a box of vaseline, a bottle of carbolic acid, a roll of medicated cotton, a supply of court plaster and a bottle of equal parts of lime water and linseed oil for burns.

Some of the best physicians recommend for chest diseases bathing with olive oil. Take a double fold of cotton cloth, sufficiently large to surround the body completely and saturate this with warm olive oil. Over this draw a loose woolen shirt. Renew from time to time. We have used most effectively in our own family, for temporary colds honey and carbolic acid, using 40 drops of the latter to one pound of pure, strained honey.

Then every mother should study the several poisons and their antidotes. As an emetic, ground mustard mixed in warm water is always safe, so I suggest that ground mustard be put on the emergency list.

Parents will study harmless but effectual remedies and keep them at hand, not only the members of the family will be saved prolonged suffering, but the dumb animals at the barn may not only be relieved from, but in many instances their loss prevented. Yet in all doubtful cases the skilled physician's advice should be sought. MRS. MARY ANDERSON.

Caldwell, Co., Mo.

TO KEEP SAUSAGE FRESH.

To keep fresh beef, pork or sausage, all summer, prepare sausages for the table; fry very lightly, pack closely in glass, stone or the fruit jars, cover with hot lard, seal and set away. When wanted for use, open the jar and set where the lard will melt, then take out as much meat as is needed, reseal the jar and set away again. This is much better than covering with lard in plain jars, as the meat is almost sure to go to fishing in the Meramec River, it looked so tempting. As we rushed by I saw some skiffs by the shore, and a skiff always starts my heart's blood flowing a little faster. I want to get in and try the oars to see if I have forgotten how they should be handled.

Fayette Co., Ill. ROSA AUTUMN.

"SISTER'S BEST FELLER."
My sister's "best feller" is 'most six-foot-three,
And handsome and strong as a feller can be;
And Sis, she's so little and slender and small,
You never would think she could boss him at all;

But, my jing!
She don't do a thing
But make him jump round like he
worked with a string;
It just makes me 'shamed of him sometimes,
To think that he'll let a girl bully him so.
He goes to walk with her and carries her
mu;

And coats and umbrellas, and that kind
of stuff;

She loads him with things that must
weigh 'most a ton;

And, honest, he likes it, as if it was fun,
And, oh, say!

When they go to a play,

He'll sit in the parlor and fidget away,
And she won't come down till it's quarter past eight,

And then she'll scold him 'cause they get there so late.

He spends heaps of money a buyin' her things

Like candy and flowers and presents and rings;

But all he's got for 'em's a handkerchief case—

A fussed-up concern made of ribbons and lace—

But, my land!

He thinks it's just grand,

'Cause she made it, he says, "with her own little hand."

He calls her an "angel"—I heard him and "saint,"

And "beautiful bein' on earth;" but she ain't.

Then there is the man who is always figuring out fabulous profits. In the current issue of an excellent farm journal he says that the market value of a hen in the year "hens of the heavier breeds will bring 60 cents to a dollar each." I have written this party to say that I have furnished 500 hens to "heavier breeds" on that same date at 60 cents each, freight paid to his station; he can sell them at the higher prices and make a nice profit, and as I can buy them at 25 cents each, I will also turn an honest penny, but I will never hear from him.

In a recent issue of a "hen paper" I find a table giving weight of food and cost per pound of eggs. I have found in this table that it costs 75 cents to grow a Brahma, Rock or Cochinchina, and only 40 cents to grow a Leghorn. As our hens have bankrupted me five times in four years, as she raised 300 chickens in a year. As ours are Brahma, we will sell them off at 60 cents each, and the cost of production is 25 cents.

But there is a ray of hope for us for, by the table, there is a foot note.

These results can only be attained by correct feeding and continual attention.

And that is the reason we have been able to figure a decent profit, as we have sold \$116 worth in a year. Interested parties in the dairy industry will find this note of great value, for it is so cheap as to be far below the cost of production; now one seldom sees a duck on a farm. The Belgian hare is the present fad, and it will catch hundreds of people who want to get rich quick and with little labor.

Stick to the poultry, give them comfortable quarters and good feed, buy from a responsible breeder who is willing to sell at a fair price; select your male breeders from these and you will find plenty of room on the farm pays, even as huckster prices for stock and eggs.

O. H. COOPER.

Written for the RURAL WORLD.

A VISIT.

Now, if my place in the Home Circle hasn't given to a more worthy member, I will tell the members about my visit of four weeks in St. Louis and my trip to Sullivan, Mo., on the Frisco R. R., a very pleasant road on which to travel.

Had a nice time? Of course I had. How could I help it when surrounded by so many dear friends and the ever watchful care of a loving nephew and niece, taking me every place they thought would give me pleasure. When at their home I was entertained by two of the nicest little boys any aunt ever had; they would read to me, play lovely music for my enjoyment, show me their drawings and paintings and entertain me with games. They appeared never to tire of making my visit a pleasant one. I never had a more enjoyable visit any place in my life. I wish every one could have two such boys as Tommy and Bobby Blakemore.

I want to tell you of another visit I had while in St. Louis, as it certainly is a visit that will live in memory as long as life lasts, it was so pleasant and full of real enjoyment. It was a Saturday night and Sunday spent with the editor and his family. In their mother I found one of the dearest, most companionable old ladies I ever had the pleasure of spending a day with. I thought what a blessing they have in their mother, making their home so happy with her presence.

I have a great many dear friends in St. Louis, and every one tried how much pleasure each could crowd into my stay with them. Many of the younger families I have known all their lives, having been a welcome visitor in their parental homes, some of whom have gone to the other Home "Beyond the Gates," where some day we will have a happy reunion.

How often in life we do the very thing we are sure we will not do. When leaving home for St. Louis I felt as sure I would not go to Sullivan, as I now am that I did go. I was met at the depot by the husband of my old friend, the friend of my youth. He met me on the platform with open arms and a brotherly kiss. We were soon in his buggy fairly flying over that rough, rock road to "Rose Villa," their lovely farm home. I will have to let you picture the scene for yourselves when I alighted or was lifted out of that buggy at the gate leading into my friend's yard and lovingly clasped in Mary Schattner's arms, and almost carried into the house, where a sumptuous dinner was awaiting. Was I hungry? I think you would say I was if you had been there.

Dinner over, the talk began. Mary is just as good a talker now as she was 50 years ago. She has an excellent memory, and recalled many incidents of our youthful days—happy days—spent in Louisville. How often in life we do the very thing we are sure we will not do. When leaving home for St. Louis I felt as sure I would not go to Sullivan, as I now am that I did go. I was met at the depot by the husband of my old friend, the friend of my youth. He met me on the platform with open arms and a brotherly kiss. We were soon in his buggy fairly flying over that rough, rock road to "Rose Villa," their lovely farm home. I will have to let you picture the scene for yourselves when I alighted or was lifted out of that buggy at the gate leading into my friend's yard and lovingly clasped in Mary Schattner's arms, and almost carried into the house, where a sumptuous dinner was awaiting. Was I hungry? I think you would say I was if you had been there.

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Then every mother should study the several poisons and their antidotes. As an emetic, ground mustard mixed in warm water is always safe, so I suggest that ground mustard be put on the emergency list.

Parents will study harmless but effectual remedies and keep them at hand, not only the members of the family will be saved prolonged suffering, but the dumb animals at the barn may not only be relieved from, but in many instances their loss prevented. Yet in all doubtful cases the skilled physician's advice should be sought. MRS. MARY ANDERSON.

Caldwell, Co., Mo.

Written for the RURAL WORLD.

REMEDY FOR BURNS.

I noticed in a recent issue of your paper a general remedy for burns, but here is one I have seen in several places and to my knowledge is best of all. It is soothing, while at the same time it is sure to cure. If the burn is a bad one, it may require hours to do the work.

Take the top skin of the cloth, lay beneath

a mortar a proper consistency

for a poultice. Place this mortar upon a thin white cloth and place the poultice on the burn. Cover with a cloth, and apply a poultice.

If it is an infection that is burned and it seems restless, change the poultice in ten minutes; and in no case leave on longer than 15 minutes even with an adult. Keep the treatment up until the burn becomes pale or bleaches and puckers. When it does this the fire is out and the burned part will heal in all probability without a scar. P. V. B. COX.

Written for the RURAL WORLD.

REMEDY FOR BURNS.

To keep fresh beef, pork or sausage, all

summer, prepare sausages for the table;

fry very lightly, pack closely in glass,

stone or the fruit jars, cover with hot lard,

seal and set away.

When wanted for use, open the jar and

set where the lard will melt,

then take out as much meat as is needed,

reseal the jar and set away again.

This is much better than covering with

lard in plain jars, as the meat is almost

sure to go to fishing in the Meramec River,

it looked so tempting. As we rushed by

I saw some skiffs by the shore, and a skiff

always starts my heart's blood flowing

a little faster. I want to get in and try

the oars to see if I have forgotten how

they should be handled.

Fayette Co., Ill. ROSA AUTUMN.

THE CENSUS OF 1900.

A booklet giving the population of all

cities of the United States of 30,000 and

over according to the census of 1900,

has just been issued by the passenger depart-

ment of railroads.

Editor RURAL WORLD:

My sister's "best feller" is 'most six-foot-

three, And handsome and strong as a feller can be;

And Sis, she's so little and slender and small,

You never would think she could boss him at all;

But, my jing!</

TRY
Allen's Lung Balsam

FOR THAT COUGH

Mothers will find it a pleasant and safe remedy to give their children for whooping cough and croup. At druggists, 2c, 5c, and \$1.00 a bottle.

HOG TAMER

Makes nose like cut. Once done always done. Has a sharp pointed steel knife held by thumb-screw, and self-adjusting to gauges to suit all sizes. Send for catalog. W. L. SHORT, P. O. Box 526, Lewistown, Mo.

LABEL

Dana's White Ear Labels

Stamps with your name and address with consecutive numbers. Twenty four recording associations and thousands of practical farmers, breeders and veterans. Sample free. Agents Wanted.

C. H. DANA, 70 Main St., West Lebanon, N. H.

BARNS of plain wood most desirable; 4,000 ft. in 42 states. Tested for years. Send for sample.

SHAWVER BROTHERS, Belfastaine, O.

GILTS Bred for April farrow at farmer's prices. W. P. Rock Eggs in season.

R. S. Thomas, Carthage, Mo.

LATEST

DEHORNER Every Dehorner Guaranteed

THOUSANDS IN USE. Ask your hardware dealer for them or write

H. H. BROWN MFG. CO., - DECATUR, ILL.

SICK HOGS 5 Cents Per Hog Per Year.

A postal will bring full particulars and book on the "CARE OF HOGS." Address Moore's Co., Stock Yards, KANSAS CITY, MO.

POLAND-CHINAS.

A BIG CHANCE TO GET PRIZE-WINNING Poland-Chinas right. Captured 15 first & second premiums at Edwardsville, Ill., Fair, and the same premiums at the Highland Madison County Fair. There are no better Poland-Chinas in the country. Everything eligible to record.

L. A. SPIES BREEDING CO., St. Jacob, Ill.

BLACK U. S. AND TECUMSEH POLAND-CHINA PIGS as \$10. Gilts bred \$90, those are right. Personal in investigation solicited. Jersey cattle for sale.

EINSTEIN W. WALLEN, Monett, Mo.

VIVION & ALEXANDER, FULTON, MO.

Breeders of the best strains of Poland-China hogs. Registered Jersey cattle and Plymouth Rock chicks. Young stock for sale at all times.

ED. C. WEEKS, ELDON, Iowa. Breeder of Gilts, and their Plymouth Rocks and S. C. Leghorns. Young stock and eggs for sale at farmers' prices.

POLAND-CHINAS

As very reasonable prices and of the best breeding registered stock. Write for prices.

J. H. WAGENECK, Enfield, Illinois.

POLAND-CHINAS Gun dogs, pedigree and individual merits combined.

R. L. ORGAN, Carmel, White Co., Ill.

DUROC-JERSEYS.

BIG 2 HERDS Pure Jersey and Chester White Hogs. Two individuals created. Write for let-live prices.

J. E. HAYNES, Ames, Ia.

Duroc Jersey and Berkshire Hogs Extra breeding. Satisfaction guaranteed or you may return at my expense.

S. C. WAGNER, Pana, Ill.

S. G. RICHARDS, Sturgeon, Boone, Co., Mo.

Breeds Best Strains of DUROC-JERSEYS. Write for Prices.

DUROC-JERSEYS -70 head of pigs and sows, bred ready to ship. Satisfaction guaranteed.

N. B. SAWYER, CHERYLLE, KAN.

ROSE HILL HERD

OF DUROC-JERSEY HOGS

Choice gilts and sows for sale. Hogs ready for sale, and a thirty lot of Aug. and Sept. pigs for sale. S. Y. THORNTON, BLACKWATER, MO.

BERKSHIRES.

Large English BEEF PIGS 15 buys best of breeding. B. R. CHAMBERS, Gentry Co., Mo.

G. W. MCINTOSH, MONETT, MO.

SHROPSHIRE RAMS.

all yearlings, for sale; also any stand ram for sale or trade for one as good. Address L. G. JONES, Towns, Ill.

MERINO SHEEP Both American and Delaine.

Won more than all others at World's Fair and National Shows. 90 exotics.

R. E. GUTHRIE, ST. CLAIR, ST. LOUIS, Mo.

REGISTERED JERSEY CATTLE.

FARMS.

160 ACRES Irrigated Alfalfa land, 500 bearing fruit trees, good house. Barn, stock sheds, etc. will be seen at Alfalfa, Mo. in Western Kansas for \$100. If you want good climate, comfort and prosperity, try the stock business in Western Kansas, where canes, alfalfa, cotton, cotton, etc., will pay from 25 per cent on capital invested. Farm lands and exchange for farms.

BOLES & HOPE, Birmingham, Iowa.

Cash For Your Farm

may be obtained through me. No matter where located. Send description and selling price and learn my plan. W. M. OSTRANDER, 1218 Fifth St., Phila., Pa.

FOR SALE -A farm of 200 acres beautifully situated on Ohio River and near Big Four Railroad. For particulars address MRS. ANGELA C. BAGBY, Olmsted, Illinois.

GET OUR FREE LIST of Farm Bargains. S. H. Morton & Co., Gen. Land Agt., Agricultural, Mineral, Coal and Timber Land Office, 381 Lincoln Trust Building, St. Louis.

FOR SALE!

Two first-class Benton County, Osage River bottom farms, lying half a mile apart, and five miles from Weston, Kan. Each farm 160 acres and contains 100 acres in one, and three hundred and twenty-three acres in the other. For particulars, price and terms, address

Wm. S. Shirk, Sedalia, Mo.

C. Madison, Edw. Coyle & Jos. B. Hensley

Have formed a partnership for the purpose of getting reliable information, maps, etc., to persons interested in the new opening in the Indian Territory. Mr. Madison has had fine new opening up the country, and the new roads and railroads within a few miles of the gate-way in the new country which I hope Spring, Corr. & Henley. Refer to the Bank of Springfield, Chicago, Livestock Commission Co. of Kansas City, Mo.

COME TO SUNNY SPOKANE.

Big money made raising grain, fruit, vegetables, stock and poultry. Fine land cheap. Write for literature and particulars. Chamber of Commerce, Spokane, Washington.

The Pig Pen.

You will be pleased with the results. It contains no opium in any form, and as an expectorant it is equal.

Mothers will find it a pleasant and safe remedy to give their children for whooping cough and croup. At druggists, 2c, 5c, and \$1.00 a bottle.

NEVER ROOT

Makes nose like cut. Once done always done. Has a sharp pointed steel knife held by thumb-screw, and self-adjusting to gauges to suit all sizes. Send for catalog. W. L. SHORT, P. O. Box 526, Lewistown, Mo.

SELECTION AND CARE OF THE BROOD SOW.

Many farmers have the idea that any kind of a sow will do to raise pigs. They never notice her individuality or her fitness to raise pigs that will fill the demands of the market, says M. C. Thomas in "N. E. Farmer." If we expect to make a success in growing hogs we must put forth every effort to raise the kind of hogs the market requires. At the present time the hog that is nicely finished and will weigh from 150 to 200 lbs., not over eight months old, is the kind most sought for. In selecting breeding stock to produce this class of hogs we should shun those with hard, stiff ears and woolly, bristling coats. These characteristics denote slow growth and hard feeding qualities. Instead, select a sow with good growth, good medium bone, nice soft drooping ears wide between the eyes, good jowl, a good broad chest, short nose and a good heart girth.

With these qualities and then by proper care we can expect pigs that will always please the buyer. The care of the brood sow during the winter months is very important if we expect her to produce a healthy litter of pigs in spring. As I travel over our state doing institute work, it is surprising to see the difference of opinions about the care of the brood sow. Some have the idea that corn and water are good enough for a hog, but I am glad to say it is becoming more and more known each year that she needs something else. She should be fed upon bran mash, shorts, milk, parings from the table and just enough corn to keep her in good flesh. Some advocate that a sow should be kept in thin flesh, but I have always noticed that when a sow is in good flesh she will give her pigs a better start than one that is thin.

The brood sow should not be kept in close quarters. She should have a good range and be out to exercise every suitable day. She should also be provided with a good, dry shelter, and the bedding removed at least once every two weeks.

If it is left longer it will become damp and the first thing you know the hair will be coming off in spots. For bedding material I have never been able to find anything better than nice, clean wheat straw, but if you haven't this cut corn fodder or leaves will answer very well. Always be very careful not to use anything that contains much dust.

"Never Root" Hog Tamers are best.

THE FIRST 100 POUNDS.

Our local stock buyers are paying \$4.35 per cwt. for good fat hogs. If any one wants to buy good shoats weighing 100 pounds each for feeding he could not buy them here for less than \$5 or \$6 a head, and many farmers would price them at still higher figures, writes C. H. Herrs in "Ohio Farmer."

We often see it stated that the first 100 pounds of hog can be made cheaper than the second 100 pounds. Yet there are very few farmers who like to sell their hogs until they weigh 200 pounds or more. If the statement is true that the first 100 pounds is the cheapest to produce, and that the risk is less for the second 100 pounds, farmers are making a mistake by not breeding more sows and selling the pigs when they will weigh 100 pounds each.

For one, I think the farmer who feeds until they weigh 200 pounds or more is pursuing the right course. I am so well satisfied that I can make the second 100 pounds for less cost than the first 100 that I would like some one who thinks the other way to locate near me and we will raise hogs in partnership. I will agree to take 100 head every year, of an average weight of 100 pounds. I will feed these until they will average 200 pounds, then we will sell them and divide the proceeds equally. When some one will go into an agreement of this kind I will sell my sows and will have no hogs to care for only when finishing a bunch for market. If the hogs are furnished in two bunches of 50 head each, more than half of the year I will have no hogs on the place, as the 100-pound shoit will gain 100 pounds in two months if well cared for.

Of course, if the hogs are raised for market, the farmer will have to feed his hogs for his brood sows and his time in caring for them and the use of the male, the first cwt. is the cheapest.

Oscillation of the hog for market is the best for the brood sows and their time in caring for them and the use of the male, the first cwt. is the cheapest.

The PROFIT FARM BOILER is well known to most readers of agricultural literature, and in many communities this article of so much general use and real and substantial value is highly prized. It has been manufactured, and improved from time to time, during the past quarter century and deservedly ranks at the front. The manufacturers also put out besides

the self-dumping boiler excellent laundry stoves, hog scalders, etc. They have also lately patented a skillet with a wooden handle which guards housewives' hands from burning. Parties who have already secured these larger articles for use, should remember their latest and write for circulars of any of the goods in which one is interested. Address D. R. Sperry & Co., Batavia, Ill.

THE BEAUTIFUL MCCORMICK CAL-

ENDAR.

Every farmer should apply to the nearest McCormick agent for a copy of the most beautiful and artistic calendar ever issued by any harvesting machine house, and obtain at the same time a catalog of the machines manufactured by that company. In 1891, both the calendar and the catalog were of great interest. Address D. R. Sperry & Co., Batavia, Ill.

THE BEAUTIFUL MCCORMICK CAL-

ENDAR.

Big money made raising grain, fruit, vegetables, stock and poultry. Fine land cheap. Write for literature and particulars. Chamber of Commerce, Spokane, Washington.

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COME TO SUNNY SPOKANE.

The Markets

WHEAT—Cash Market.—By sample—No. 2 red; No. 3 red at 71c for thin to 73½c for choice; No. 4 at 67c to 68c; No. 2 hard at 70½c/lbs. 5,000 bu. to arrive at 70½c, and fancy Turkey 73½c; No. 3 hard at 68 to 70½c.

CORN—Cash Market.—On trk. delivered, No. 2 at 37½c (37½c for high color and taste); No. 3 at 37½c to 38c; No. 2 yellow at 38c; No. 2 white at 37½c; No. 2 white at 36c, including No. 3 white to 36c.

OATS—Cash Market.—By sample, No. 2 at 25c/25c; No. 3 at 25½c; No. 2 Northern at 26c; No. 2 white at 27½c; No. 3 white at 26c; No. 4 white at 26c/26½c.

RYE—Grade No. 2 salable at 50c/c, and sic asked.

MILLFEED—Firm for bran, which in demand at 50c/c; bran in small sizes at 50c in large and 50c/50c in small sizes; 4c in buck; mixed feed in 100-lb. sacks, sold to arrive at 70c, and hard winter in larke sizes. E. side at 68c. At mill brain price.

HAY—Timothy 12c for choice, \$126/lb for No. 1, \$106/lb for No. 2, \$125/lb for No. 3, \$268.50 for No. 2. Clover \$16.50.

STRAW—Wheat on trk. \$16.50.

CLOVER—SHEEP for choice, \$16.50. Timothy \$4.50/lb; red top 50c for chaff to 8c for fancy; millet 75c/lb; Hungarian 70c/lb.

PRICES ON CHANGE. The following tables show the range of prices in futures and cash markets:

Closed Range Closed Saturday Monday Monday.

Wheat— Jan. .72½ n 72½ n May .70½ to 70% 70½ to 72½ n July .74 b 74 b

Corn— Jan. .36½ n 36 n May .37½ 37½ n July .38 n 38 n

Oats— Jan. .34½ n 34½ n May .35% 35% n

Cash wheat, corn and oats ranged— Last Year. Saturday. Monday.

No. 2 red....71½/lb 74c @75%

No. 3 white....68c 70c @75%

No. 2 white....68c 70c @75%

No. 2 hard....64½/65½ 70½/71½

No. 3 hard....62½/63½ 68c @70%

Corn— No. 32 63½c 37½@75% 37½/38½

No. 2 33½c 34½@75% 34½/35½

No. 2 white 32½/33 38½@75% 38½/39½

No. 3 white 31½/32½ 38½@75% 38½/39½

To CURE A COLD IN ONE DAY.

Take LAXATIVE BROMO QUININE TABLETS. All druggists refund the money if it fails to cure. R. W. GROVE's signature is on each box. See.

best buyers, and much of the competition that otherwise would have been brought out remained dormant through this case. However, there was a large attendance of buyers, and this branch of inquiry kept up a regularly active movement. Values were stronger than at the close of last week.

Buying British cavalry horses, but the competition is lighter than early last week.

HORSE quotations:

Horse draft—Common to good, \$90 to \$100; choice, \$110 to \$120. Farm chunks—\$100 to 1,350 lbs., fair to good, \$20 to \$75; good to choice, \$80 to \$100. Farm horses and colts—Fair to good, \$135 to \$175; choice, \$150 to \$180. Horses and colts—\$100 to \$150. Southern drivers—Fair to good, \$100 to \$150; choice to extra, \$120 to \$160. Saddlers for Southern use—Fair to good, \$60 to \$75; choice to extra, \$80 to \$100. Fancy saddle horses—Common, small plugs, \$125 to \$150; heavy work plugs, \$25 to \$100.

FEEDS.—The supply of mules on the open market has been limited around the country, an unusually liberal run. Trade opened with rather quiet characteristics though it was generally quoted as being steady and active. The prices were steady and in comparison with the movement of the Monday before, conditions showed up slower. However, it did not altogether mean a fluctuation market, as the trade was very active on the first day of the week that the bulk of the trading is summarized late in the day.

MULE quotations (for broke mules, 4 to 7 years old):

Jan. .72½ n 72½ n May .70½ to 70% 70½ to 72½ n July .74 b 74 b

14½ hands, bulk of sales—65c to 70c.

14½ hands, extreme range—65c to 85c.

15½ hands, bulk of sales—80c to 100c.

15½ hands, extreme range—90c to 120c.

16½ hands, bulk of sales—100c to 110c.

16½ hands, bulk of sales—110c to 165c.

sales 125c to 160c.

Bulk of sales represent mixed mules in first hands. Prices above but figures are given for first mules, extra finish and weight, strictly fat, practically sound and classified.

ADDITIONAL LIVE STOCK MARKETS ON PAGE 4.

TO CURE A COLD IN ONE DAY.

All druggists refund the money if it fails to cure. R. W. GROVE's signature is on each box. See.

THE ST. LOUIS POULTRY SHOW.

(Continued from Page 6.)

BUFF COCHIN—Cock—First, J. B. Clark, Chicago, Ill.; 91; second, John Lichten, St. Louis, Mo.; 91; third, John Lichten, St. Louis, Mo.; 91; fourth, J. B. Clark, 92%.

Cockerel—First, J. B. Clark, 90; second, John Lichten, 90%; third, same, 88.

Hen—First, J. B. Clark, 94%; second, Mrs. J. D. Westervelt, St. Louis, Mo.; third, Ferd. Heyning, Rhinehard, Mo.; 91; fourth, J. B. Westervelt, 95; fifth, J. B. Clark, 92%.

Pen—First, Joseph O'Hara, St. Louis, Mo.; 91; second, John Lichten, 91%; third, John Lichten, St. Louis, Mo.; 91; fourth, J. B. Clark, 92%.

SINGLE COMB BLACK MINORCAS—Cock—First, J. A. Launder, Carterville, Ill., 92%; second, A. G. Bommer, St. Louis, Mo., 91%; third, J. A. Launder, 91; fourth, J. A. Launder, 91.

Pullet—First, Ellendale Poultry Yards, 94%; second, H. Kannenberg, 93; third, the same.

Cockerel—First, H. Kannenberg, St. Louis, Mo., 91%; second, Ellendale Poultry Yards, 93; third, same.

SINGLE COMB BROWN LEGHORN—Cock—First, Mrs. J. C. Ratliff, St. Louis, Mo.; 91; second, Alvin Starzinger, Carbondale, Ill., 91%; third, Charles Campbell, J. W. Lewis, Mo., 92%.

Cockerel—First, Mrs. J. C. Ratliff, 93%; second, same, 93; third, E. Gay Martin, St. Louis, Mo., 92%.

Pullet—First, E. Gay Martin, 93%; second, H. Kannenberg, 92; third, the same.

Flock—First, E. Gay Martin, 93%; second, H. Kannenberg, 92; third, the same.

BUFF JERSEY—Cockerel—First, Mrs. J. C. Ratliff, 93%; second, same, 93; third, E. Gay Martin, 93%; fourth, H. Kannenberg, 92; fifth, the same.

COCK—First, Mrs. J. C. Ratliff, 93%; second, same, 93; third, E. Gay Martin, 93%; fourth, H. Kannenberg, 92; fifth, the same.

Pen—First, E. Gay Martin, 93%; second, H. Kannenberg, 92; third, the same.

Pullet—First, E. Gay Martin, 93%; second, H. Kannenberg, 92; third, the same.

Cockerel—First, H. T. Renshaw, East St. Louis, Ill., 93; second, B. L. Barnes, 92; third, Uthoff & Mertens, 91; fourth, Uthoff & Mertens, 91.

Pullet—First, H. T. Renshaw, 92; second, Uthoff & Mertens, 91; third, same, 88%.

Pen—First, E. Gay Martin, 93%; second, H. Kannenberg, 92; third, the same.

Pullet—First, E. Gay Martin, 93%; second, H. Kannenberg, 92; third, the same.

Cockerel—First, H. T. Renshaw, 92; second, Uthoff & Mertens, 91; third, the same.

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